The Larva of Cyphomella gibbera Saether (Diptera: Chironomidae)

P. G. MASON

Research Station, Agriculture Canada, 107 Science Crescent, Saskatoon, Saskatchewan S7N 0X2, Canada.

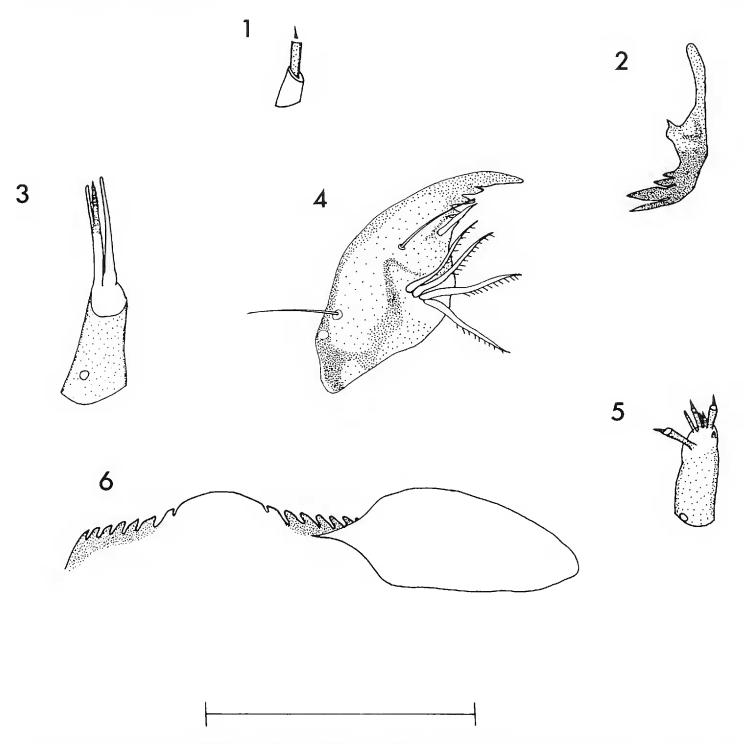
Abstract.—The larva of Cyphomella gibbera Saether is described. It differs from the other described Cyphomella sp. in having a smaller antennal ratio and in the colouration of the lateral notches of the median mental tooth.

Saether (1977) first described the male and pupa of *Cyphomella gibbera* based on material from South Dakota. In a recent study of Saskatchewan River Chironomidae (Mason, 1978) a number of imagines were reared from 4th instar larvae collected from sand, gravel, pebble and cobble substrates covered with silt or muck.

The larva of *C. gibbera* differs from that of *Cyphomella* sp. (Saether, 1977) in antennal and mental features. The former species has a smaller antennal ratio (AR of *C.* sp. is 1.78 and that of *C. gibbera* is 1.20–1.55) and the lateral notches of the median mental tooth are lighter-coloured than the lateral teeth. *Cymphomella* sp. has the lateral notches of the median mental tooth concolourous with the lateral teeth (Saether, 1977, Fig. 38H).

Cyphomella gibbera Saether, 1977, Bull. Fish. Res. Board Can., 196:103.

Head capsule brown, except tormae, U-shaped sclerite, lobes of premandibles, base of mandibles, lateral mental teeth and postoccipital margin which are dark brown. Head width 0.21–0.25, 0.23 mm. Ventral head length 0.09–0.10, 0.10 mm. Labral sensillum (Fig. 1) three-segmented. SI simple; length, 20–28, 23.8 μ m. SII 45–60, 49.8 μ m long. Pecten epipharyngis a small scale with 2–3 teeth. Premandibles (Fig. 2) length: 58-70, $63 \mu m$. Antenna (Fig. 3) with apical three segments minute; total length 66-77, 71.3 μ m; lengths of individual segments (μm) 35.0–45.0, 40.6; 16.0–28.0, 21.5; combined lengths of segments three to five, 5.0–10.0, 8.2; AR 1.2–1.6, 1.4; ring organ on basal 0.26–0.44, 0.33 of first segment; antennal blade length 26.0–37.0, 32.5 μ m; antennal style on apex of segment two. Maxillary palp (Fig. 5) three-segmented, with 7-8 styles at apex of basal segment; ratio of length to basal width of first segment 1.5–2.0, 1.7. Mandible (Fig. 4) with three inner and apical tooth light-coloured; total length 90.0–112.5, 103.0 μ m; ratio of length to basal width 0.6–1.2, 0.9; seta subdentalis narrowed apically, length 14.0–22.0, 17.8 μ m; inner mandibular margin smooth. Mentum (Fig. 6) 94.5–130.5, 111.6 μ m wide. Ventromental plates with smooth anterior margin and acute inner angle; striations distinct; ratio of width to length 2.3-2.9, 2.6. Posterior parapods with 15–16 simple hooks. Each procercus short, with eight anal setae. Anal tubules narrowed and rounded apically, 0.8–1.6 times as long as basal width.



Figures 1-6. Cyphomella gibbera Saether. 1. Labral sensillum. 2. Premandible. 3. Antenna. 4. Mandible. 5. Maxillary palp. 6. Mentum and premental plates (scale, 100 µm).

ACKNOWLEDGMENTS

I would like to thank D. M. Lehmkuhl who provided laboratory facilities and NSERC funds for materials and travel. The Institute for Northern Studies and the College of Graduate Studies and Research at the University of Saskatchewan provided scholarship funds for my work on chironomids.

LITERATURE CITED

- Mason, P. G. 1978. A biosystematic study of larval and pupal Chironomini (Diptera: Chironomidae) in the North and South Saskatchewan Rivers. M.Sc. thesis, Univ. of Saskatchewan, Saskatoon, 456 pp.
- Saether, O. A. 1977. Taxonomic studies on Chironomidae: *Nanocladius, Pseudochironomus* and the *Harnischia* complex. Bull. Fish. Res. Board Can. 196, 143 pp.